radio frequency card prepaid intelligent Cold/Hot water meter(LXSGZ-15E2)

Detailed Description

Compliance to the Standards

Cold water: ISO 4064 Class A and B

Hot water ISO 4064 Class B

Working Conditions:

Water temperature:

Cold Water≤40 Hot Water≤90

Water Pressure: ≤1MPa

Dimensions and Weight

Options	Size	Thread	Length	Width	Weight
Model	mm	Connectors	mm	mm	kg
LXSG(R)Z-15ER	15	G3/4B	190	80	2
LXSG(R)Z-20ER	20	G1B	195	80	2.2
LXSG(R)Z-25ER	25	$G1_{1/4}B$	225	104	2.5
LXSG(R)Z-32ER	32	$G1_{1/2}B$	230	104	3
LXSG(R)Z-40ER	40	G2B	245	125	3

Main Technical Data

Meter Size (mm)mm)	Class	overload Flow	Nominal Flow	Transitional Flow	Min Flow	Min Reading lectura	Max. Reading lectura
		m^3/h		l/h		m^3	
LXSGZ-15	B	3	1.5	120	30	0.0001	99999
LXSGZ-20	B	5	2.5	200	50	0.0001	99999

User's Manual: IC Card Water Meter Management System

2005-May-24th

Operating System and Language Support

1.Software

Windows Operating System: Windows 98/Me or Windows NT4.0/2000/XP/2003；

Sql Server2000 Database: This software is not included with the product. The user will have to install it on his/her own.

2. Hardware

Suggested System Specifications:

CPU: Primary frequency 1GHz or above

Memory RAM: 128 MB or above

Video Card: Super VGA, 24 Bit true colored

Miscellaneous: CD Player and mouse.

3.Language Support

The IC Card currently supports Simplified Chinese, and in the near future it will support additional languages.

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Installation Procedures

Step One: Start computer and enter the Windows （98/Me/NT/2000/XP/2003） System;

Step Two: Open the Setup.exe program, which is located in the Setup Menu;

Step Three: Enter the welcome screen of the setup program, close all other active programs, and click on [Next] to continue;

Step Four: In the [Setup Menu] window, select the setup menu for this program, and click on [Next] to continue;

Step Five: In the [Select procedure group] Window, enter procedure group name, and click on [Next] to continue;

Step Six: The [Install Data] window will show information concerning installation route and procedure group information name. Confirm the accuracy of this information and click on [Next] to begin duplication the file.

Step Seven: When the duplication is completed, click on [Finish] in the [Final} window to end installation.

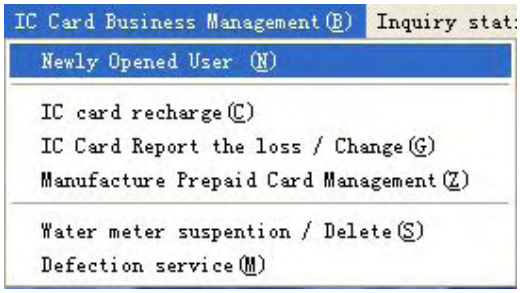
Starting to Manage the IC Card Water Meter

Double click on the IC Card Water Meter Management System icon on your desktop; you will see the dialog box shown below:

Enter Employee Number and Password, click once on the [Define] button to enter the system; (upon your first entry into the system, enter '0' for employee number and '1111' for password)

IC card water meter management system network client side
IC Card Business Management(B) Inquiry statistics(Q) System establishment and management(S) Help(H)

Procedure group name information

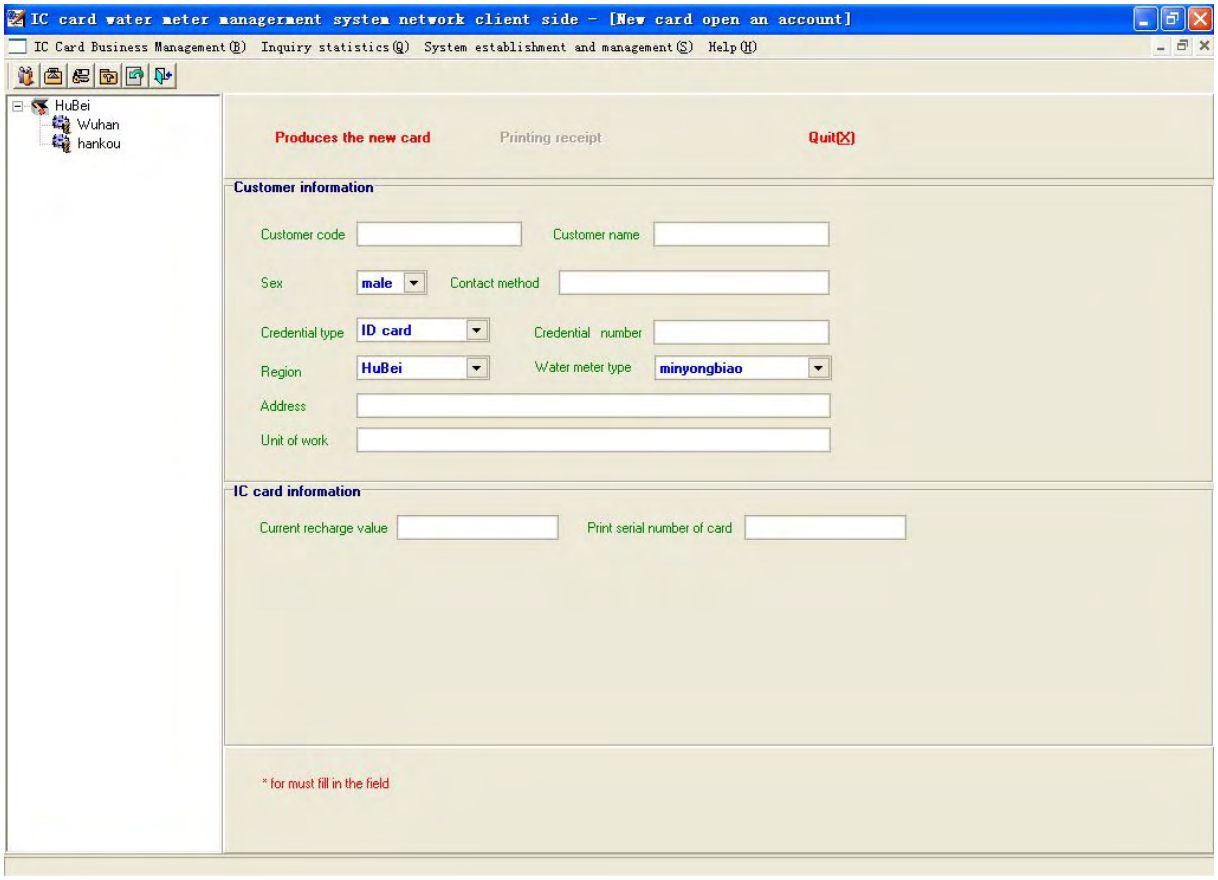


New Account	When the users report to make water meter information, we will create an IC card for the user and record user's information.
IC Card Recharge	When an IC card contains insufficient funds, we will recharge on the user's IC card.
	When a user loses his/her IC card, we will replace the IC

Change	card using his/her subscription information, and ensure that the information on the previous IC card are loaded onto the replacement IC card.
Exchange	When a user needs to exchange his defective IC card, we will implement the exchange using the user's subscription information and place the information from the original IC card into the new replacement IC card.
Pre-Paid Cards	The management can create pre-paid cards that contain fixed amounts of funds. These one-use cards will only record the card number, the amount of funds they contain, the date the funds were placed on the card, and the expiration date. These cards will not contain any subscriber/user information. Users can use these pre-paid cards without ever having to visit the management office.
Repair Requests	When a user reports a defective card, the repairs department will be notified. Personnel of the repair department will immediately check user information and proceed to conduct the repair at the user's abode or business address.
Information Concerning Repairs Made	On each day the repairs department will document the repair activities and fee-collection activities of its personnel.
Water Meter Suspension	A user may suspend the use of his/her water meter, but still retain the possibility of using the meter in the future. Such a user should return his/her card to the management office, which will refund to him/her the funds remaining on the returned card. A user who wishes to revive a suspended account should contact the management office.
Water Meter Delete	A use that wishes to cancel his water meter account should apply for a cancellation with the management office.

Opening a New Account

From the main menu, open the [new card open an account] menu and enter the [new card open an account] screen:



Produces a new card:

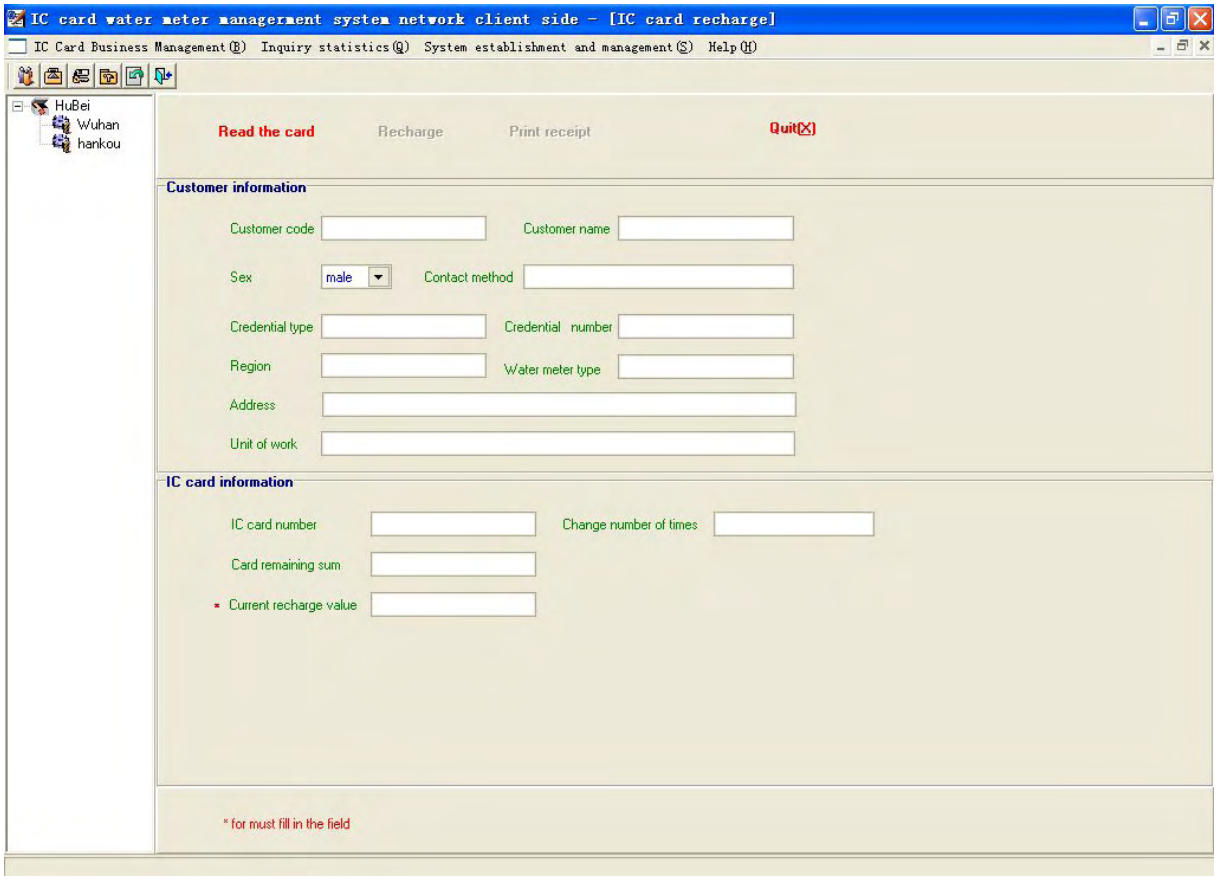
1. Provide the information requested in the [customer information] window. The customer's name and address are mandatory; other requested information is optional.
2. Provide the information requested in the [IC card information] window. Fund amount is mandatory; other requested information is optional.
3. Single-click on the [produces a new card] button. The program will enter the user's information into the database and generate a subscriber card.

Printing receipt

Press this button when you have completed the process for generating a new card.

IC card recharge

From the main menu, open the [IC card recharge] menu and enter the [IC card recharge] screen:



Read the card:

Single-click on the {read the card] button, and the program will provide the user and IC card information as related to a specific card.

Recharge:

1. When a card has been read, proceed to click on the [recharge] button. Enter the amount of funds you want to add in the space provided (only one decimal digit is allowed).

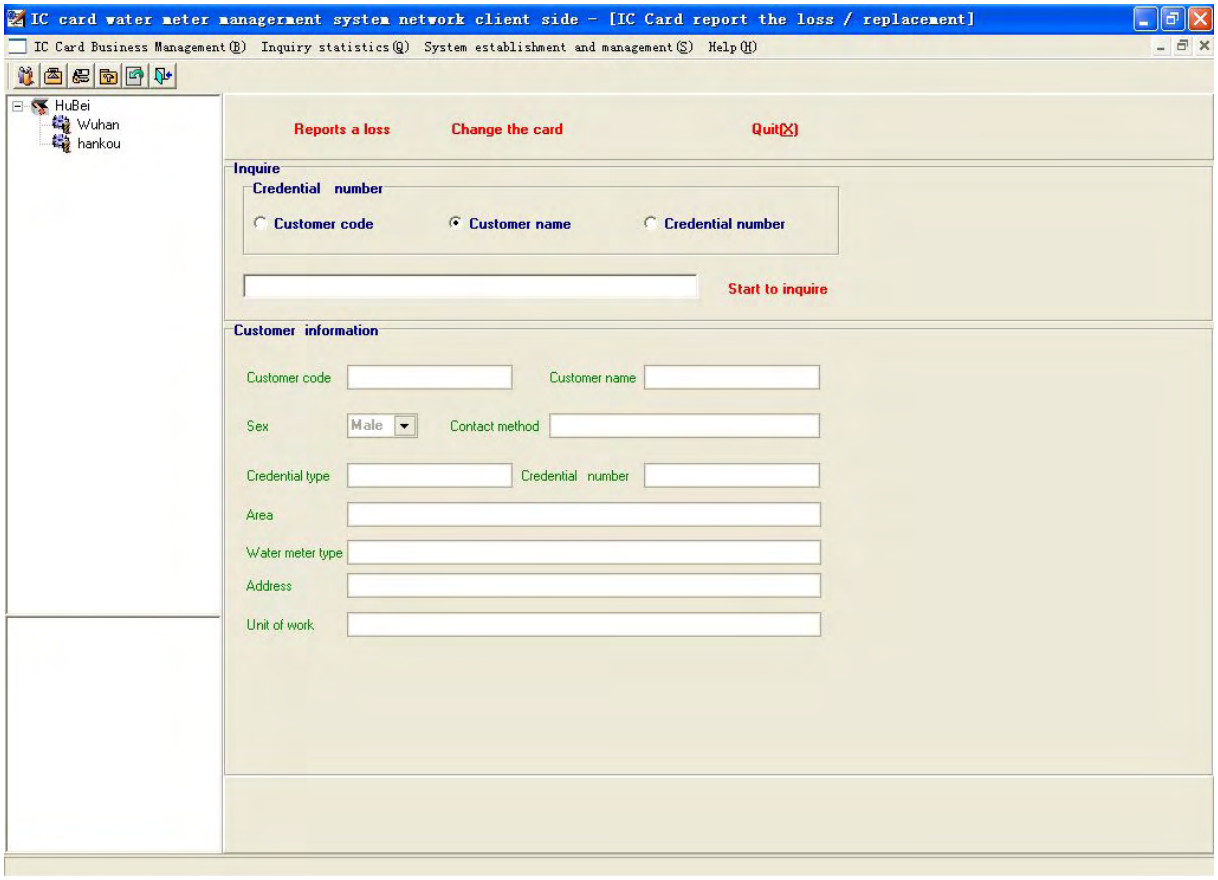
2. Click on the 'recharge' button, and a message will signal the successful addition of funds.

Print receipt :

When the process of adding funds is successfully completed, click on the [print receipt] button.

IC Card Lost and Change

Open the “IC Card report the loss and replacement” menu and enter the [IC Card report the loss and replacement”



Reports a loss:

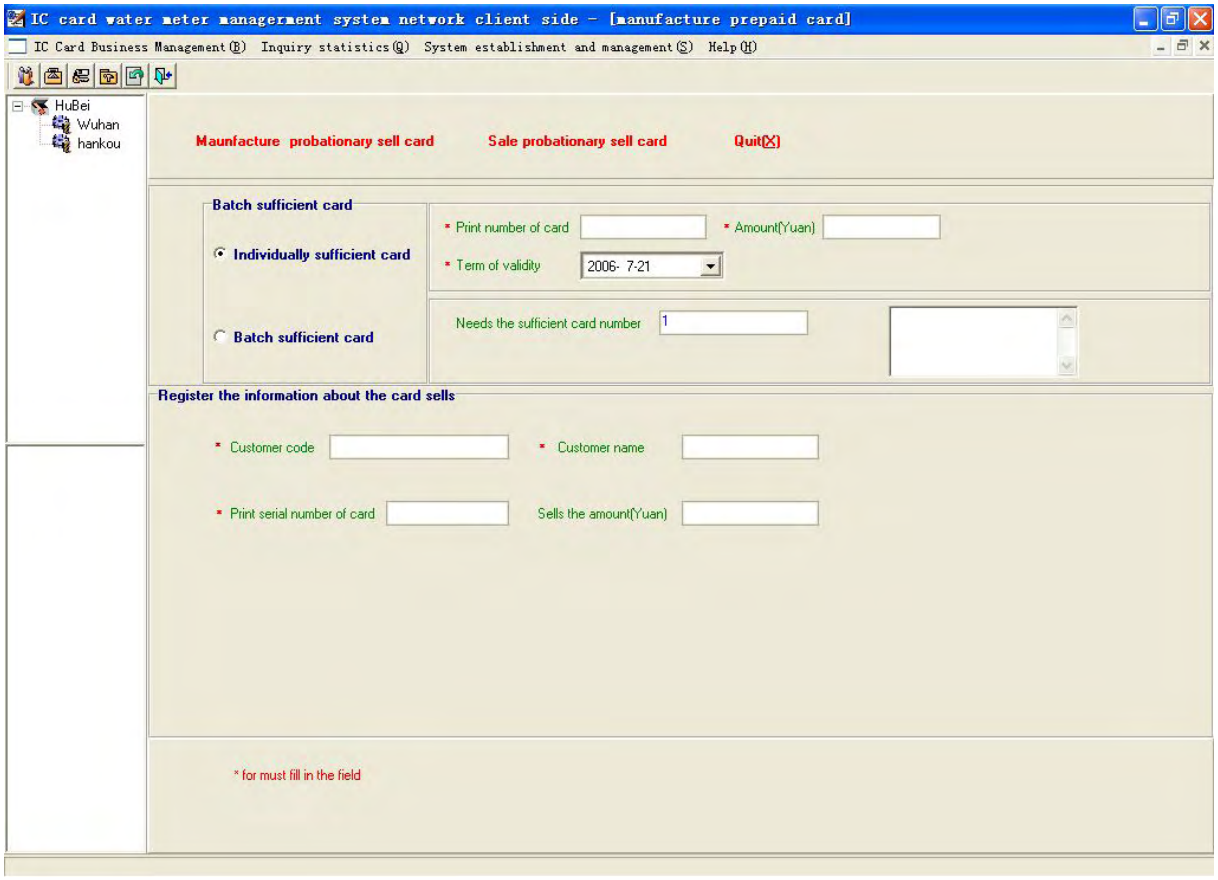
1.On the left- or right-hand side of the screen, find information regarding the user who has lost his/her card.
2.Click on the [report a loss] button to report the status of the lost card.

Change the card:。

1.On the left- or right-hand side of the screen, find information regarding the user who is seeking to replace his/her card.
2.Insert a new IC Card.
3.Single-click on the [change the card] button, and type in the user’s information.

Manufacture prepaid card

Open the “Manufacture prepaid card” menu and enter the “Manufacture prepaid card” window (as pictured):


IC card water meter management system network client side - [manufacture prepaid card]
IC Card Business Management(B) Inquiry statistics(Q) System establishment and management(S) Help(H)
HuBei
Wuhan
hankou
Maunfacture probationary sell card
Sale probationary sell card
Quit(X)
Batch sufficient card
Individually sufficient card
Batch sufficient card
* Print number of card
* Amount(Yuan)
* Term of validity
2006- 7-21
Needs the sufficient card number
1
Register the information about the card sells
* Customer code
* Customer name
* Print serial number of card
Sells the amount(Yuan)
* for must fill in the field

Manufacture prepaid card:

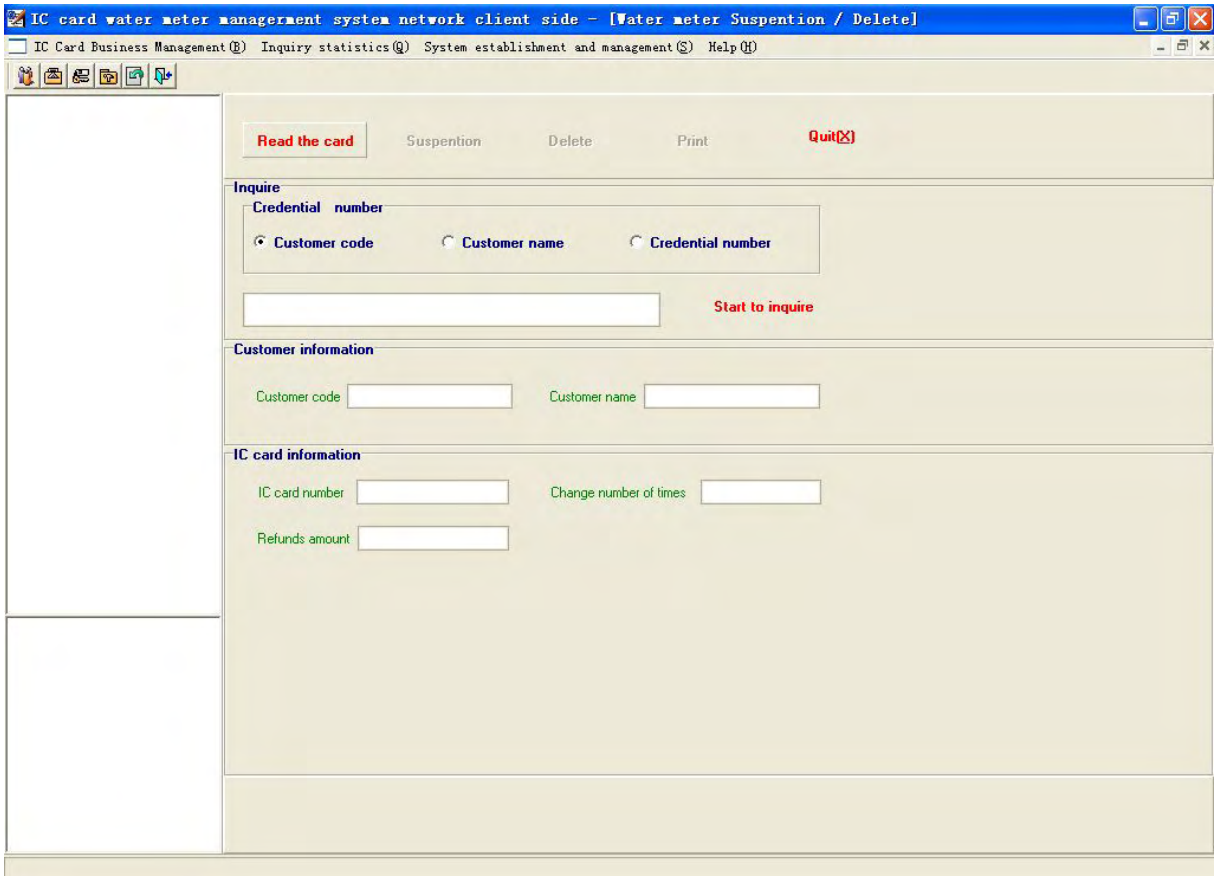
1. Select a method for generating the card. The 'Individually sufficient card' option allows you to create only one card, while the "Batch sufficient card" option allows you to create multiple cards continuously.
2. Single-click on the "Manufacture prepaid card" button.

Sale prepaid card:

1. On the left- or right-hand side of the screen, find information regarding the user seeking to purchase a pre-paid card.
2. Write the serial number and amount of funds onto the card.
3. Single-click on the "sale prepaid card" button to enter information related to the sale into the database.

Water meter suspension and delete

Open the "Water meter suspension/delete" menu and enter the "Water meter suspension/delete" screen (as pictured)



Read the card:

Single-click on the “Read the card” button to display information concerning the user and his/her IC card.

Suspension an account

1.Single-click on the “suspension” button once a card has been read.

2.If the user has just applied for suspension, the screen will display the message “please insert this card into the water meter.”

3.If the user has applied for suspension and has already inserted the card into the water meter, the screen will display the message “suspension successful” and show the amount of funds remaining on the card.

Delete an account:

1.Single-click on the “Delete” button once a card has been read.

2.If the user has just applied for cancellation, the screen will display the message “please insert this card into the water meter.”

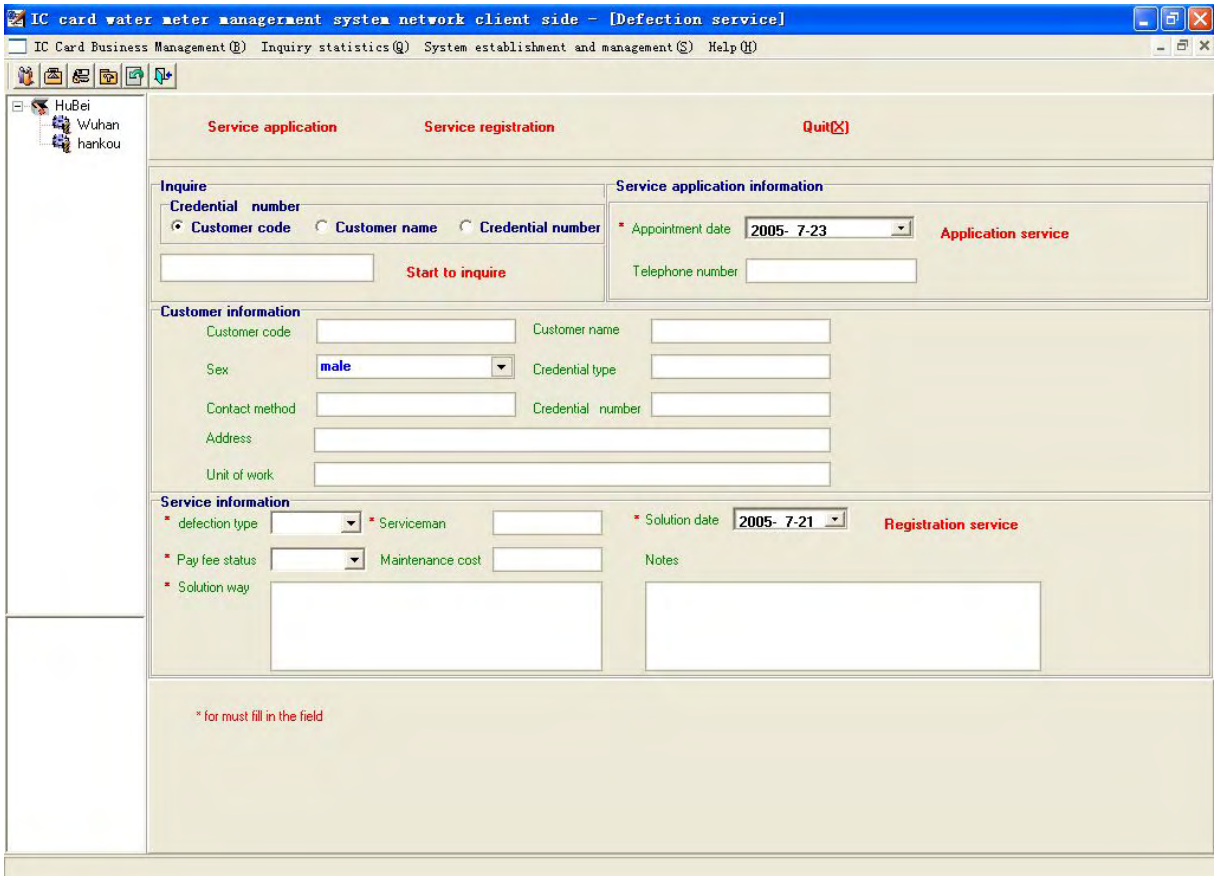
3.If the user has applied for cancellation and has already inserted the card into the water meter, the screen will display the message “suspension successful” and show the amount of funds remaining on the card.

Printing a receipt:

Once a suspension or cancellation has been successfully processed, single-click on the “print” button.

Defection service

Open the “Defection service” menu and enter the “Defection service” screen (as pictured):



Service application:

1. Single-click on the “service application” button, and find relevant user information on the upper-right corner of the screen.
2. Single-click on the “service application” button; provide the information requested by the “service application information” screen.
3. Once you finish providing the information requested by the “service application information” screen, single-click on the “service application” button to complete the process.

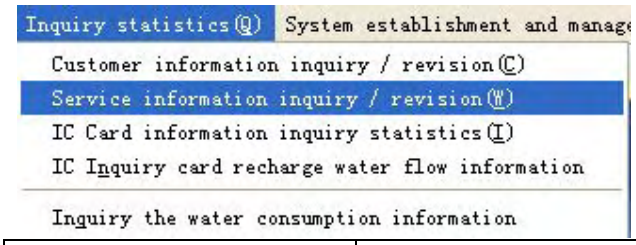
Service registration:

1. Single-click on the “service registration” button, and, on the upper-left corner of the screen, find relevant information concerning the user who has requested and received repair service. ◦

2. Provide the information serice by the screen.

3. Once you have provided the service information, single-click on the “service registration” button to complete the process.

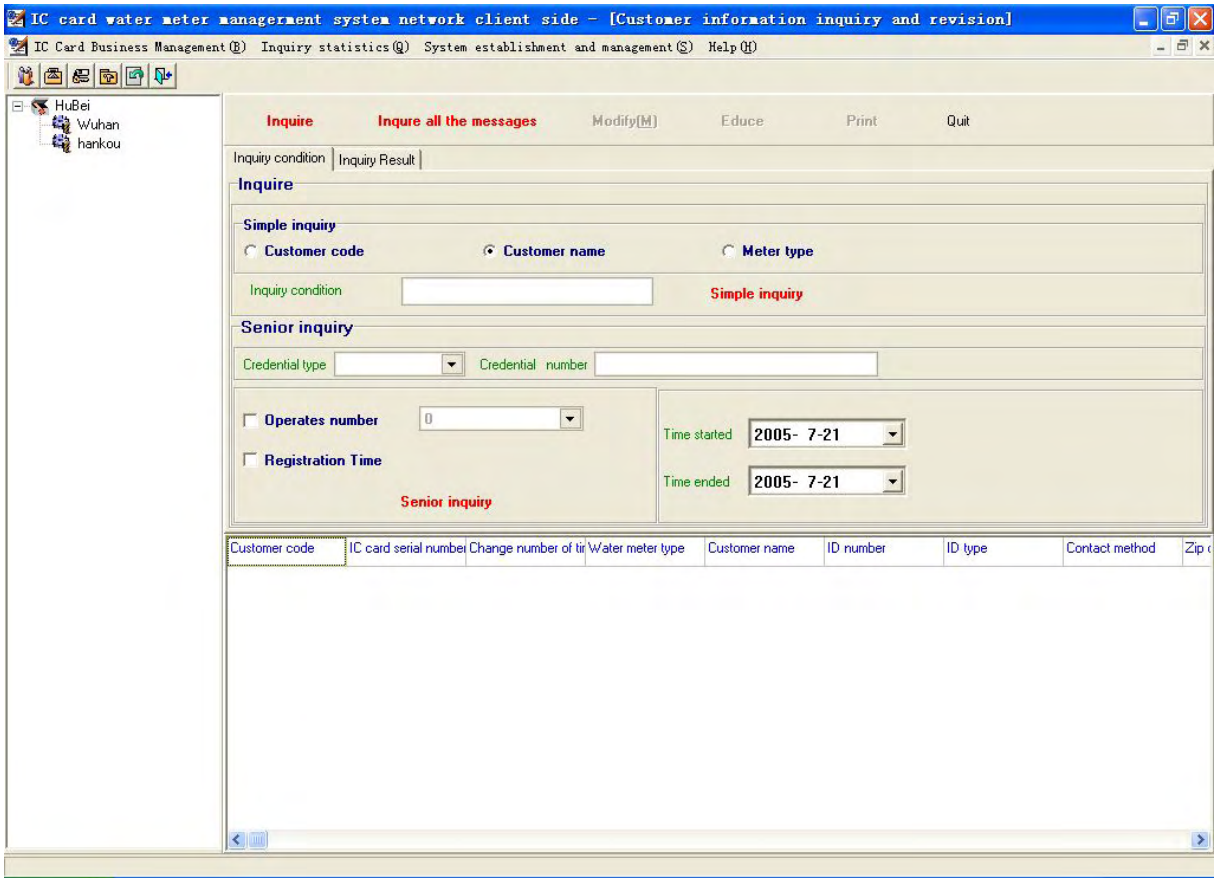
Inquiry statistics modular structure explanation


Inquiry statistics(Q)
System establishment and manag
Customer information inquiry / revision(C)
Service information inquiry / revision(V)
IC Card information inquiry statistics(I)
IC Inquiry card recharge water flow information
Inquiry the water consumption information

Customer information inquiry/revision	Customer status is divided into various subcategories: new account status, meter use status, water meter display status, and water meter suspension status. Management can target customers with specific types of statuses and forward them important information pertinent to users with their statuses. The administrator has the authority to modify customer information. The administrator may search and categorize customers in accordance with time and usage.
Service information inquiry/revision	Management may search and tabulating repair information and records. The administrator has the authority to modify user/customer information.
IC card information inquiry/revision	The status of IC cards is divided into several subcategories: initial use status, normal operation status, status of changes, suspension status, and pre-paid card usage status. Management may search and tabulating each of these statuses.
IC card recharge water flow information inquiry	Management may search and tabulate the amount of funds placed on IC cards.
Add up the water consumption information	Management may search and tabulate monthly water usage.

Customer information inquiry and revision

Open the “Customer information inquiry and revision” menu and enter the “Customer information inquiry and revision” screen. (As pictured):



To inquiry: Single-click on the “Inquiry” button and window will display various search criteria.

Simple inquiry: Only search with one criterion.

Inquiry by Customer code:

1. Single-click on the “inquiry” button;
2. Click on the “simple inquiry” window and select “customer code”;
3. Type the customer number in the text box to the left of the “simple inquiry” button;
4. Click on the “simple inquiry” button;

Inquiry by Customer Name:

1. Click on the “inquiry” button;
2. Click on the “simple inquiry” window and select “customer name”;
3. Type the customer name in the text box to the left of the “simple inquiry” button;

4.Click on the “simple search” button;

Inquiry by Water Meter Type

1.Click on the “inquiry” button;
2.Click on the “simple inquiry” window and select “water meter type”;
3.Type the water meter type in the text box to the left of the “simple inquiry” button;
4.Click on the “simple inquiry” button;

Senior inquiry: (Search with either one criteria or two criteria)

Inquiry by ID Type and ID Number:

1.Click on the “inquiry” button;
2.Click on the “Senior inquiry” window, select “ID type” then enter “ID number”(must enter identification number to inquiry);
3.Click on the “Senior inquiry” button;

Inquiry by operator number and Registration time:

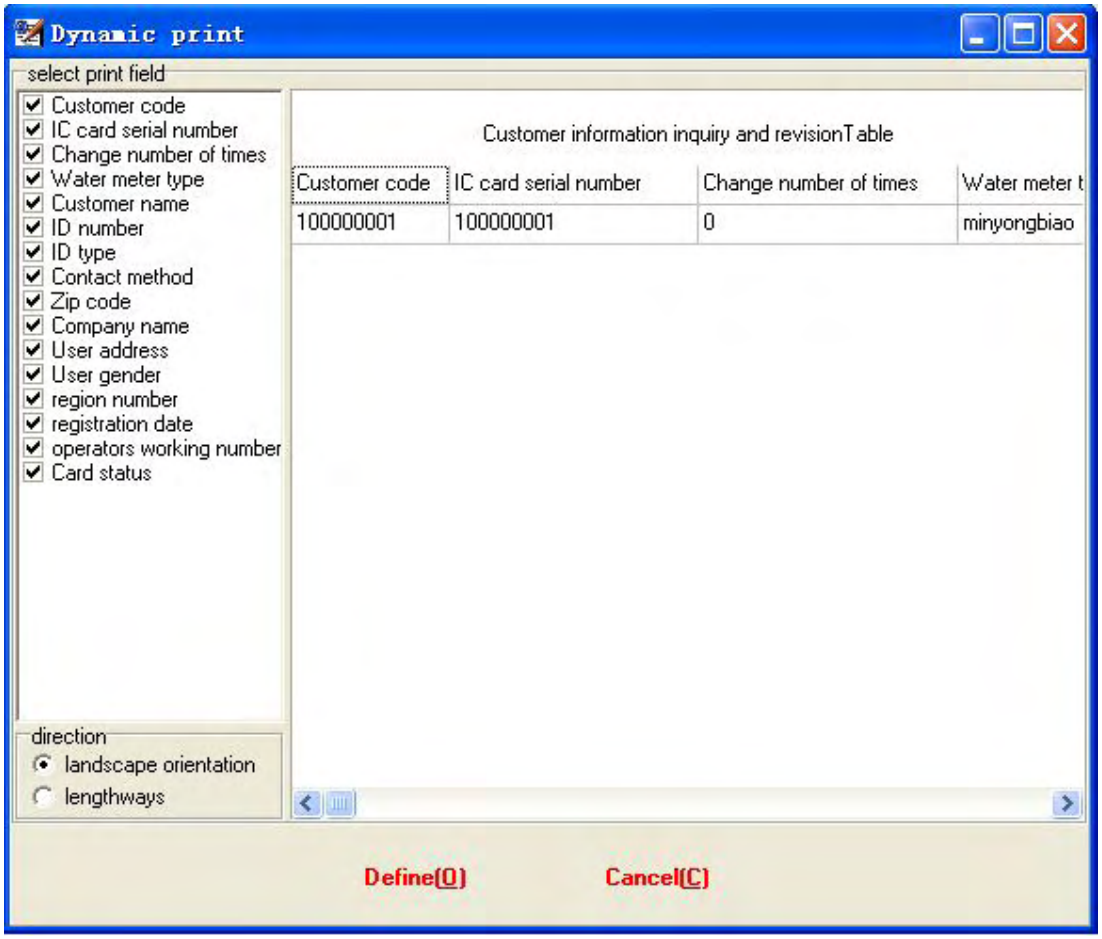
1.Click on the “inquiry” button;
2.Click on the “Senior inquiry” window, select “operator number and registration time” then enter “ID number”(must enter ID number to inquiry);
3.If you are only searching by operator number, select “operator number”, then select the next operator number. If you are only searching by registration time, do not select “operator number”, instead select “registration time”, then click on the time window on the right-hand side, and search by the beginning and ending times.
If you are searching by both operator number and registration time, select “operator number”, select the next operator number, select “registration time”, click on the time window on the right-hand side, and at last search by the beginning and ending times.
4.Click on the “Senior inquiry” button once criteria selection has been completed

Inquiry by Region:

Select the region you want from the tree-like image on the left, and you’ll be able to search all of the customer information for that region
Click on the data window below, which will display all the information for the selected region.
Modification: (may only be made when the data window at the bottom of the screen displays data)
Click on “modify” button, then the “modify” button will change into the “submit” button. Modify the information you want to change, click on “submit”. If the modification is successful, the “submit” button will change back to the “modify” button, otherwise a data window may pop up.

Educe to Excel: (Note: may only be done when the data window at the bottom of the screen displays data)

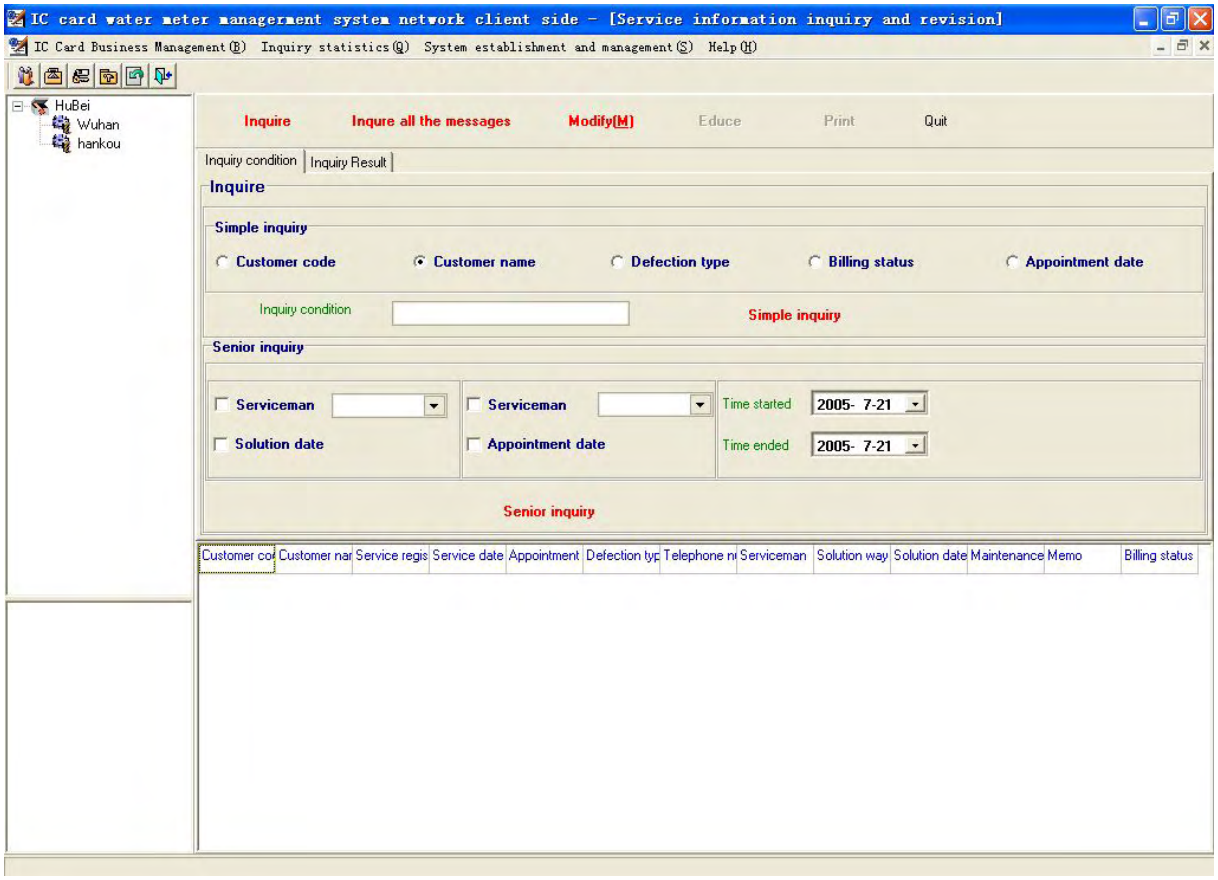
Print: (may only be done when the data window at the bottom of the screen displays data) (as pictured)



Select the data you want print on the left side of the screen. The “direction” function lets you select whether to print vertically or horizontally. After checking the content you want to print, click on the “OK” button to preview the information you will be printing.

Service information inqury and revision

In the main menu, click on the “Service information inquiry and revision” menu and enter the “Service information inquiry and revision” screen:



Click on “inqury”, select the criteria you want to search with.

Select “Customer code”, enter the customer code you want to search with in the search criteria window, and click on “simple inqury”.

Select “Defection type”, enter the defection type you want to search with in the search condition, and click on “simple inqury”.

Select “Billing status”, enter the billing status you want to search with in the search condition, and click on “simple inqury”.

Select “Customer name”, enter the customer name you want to search with in the search criteria window, and click on “simple inqury”.

Select “Appointment date”, enter the appointment date you want to search with in the search criteria window, and click on “simple inqury”.

To search with a higher-level detail, select the Senior inquiry option.

Serviceman and Solution date: Select a serviceman number, and then select solution date. End by clicking on “senior inquiry”.

Serviceman and Appointment Date: Select a serviceman number, and then select appointment date. End by clicking on “senior inquiry”.

To modify service information, click on the “modify” button, which will then change to the “submit” button. (Note: modification function may only be used when data are displayed in the data screen at the bottom of the screen).

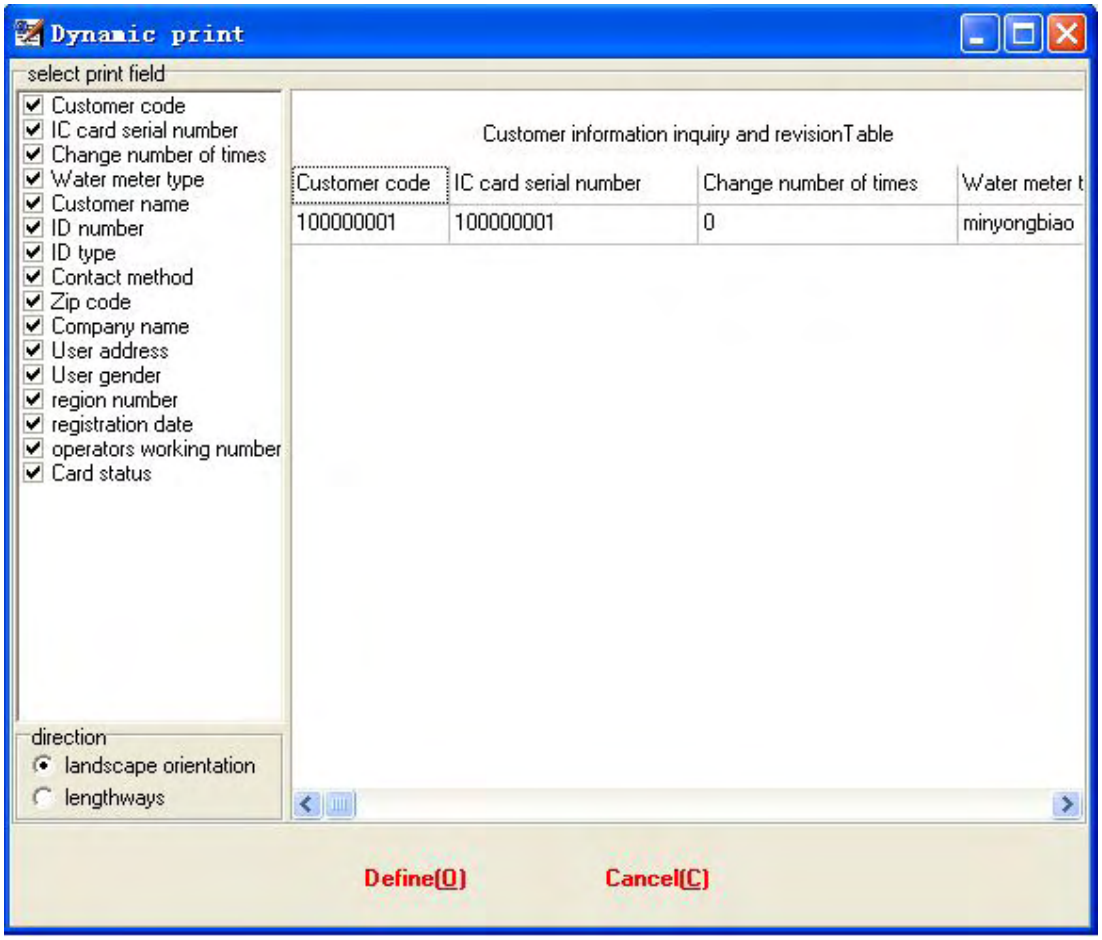
Click on the “modify” button, and the data in the search result window may be modified. Click on “submit” once modification is completed, then the “submit” button will change to the “modification” button, otherwise a message window will pop up.

Educe to Excel (Note: This function may only be used when data are displayed in the data window at the bottom of the screen),

Click on the “Educe” button, open the “save file” dialog box, select the location you want to save the file to, enter a name for the Excel file, click on “save” to complete the process.

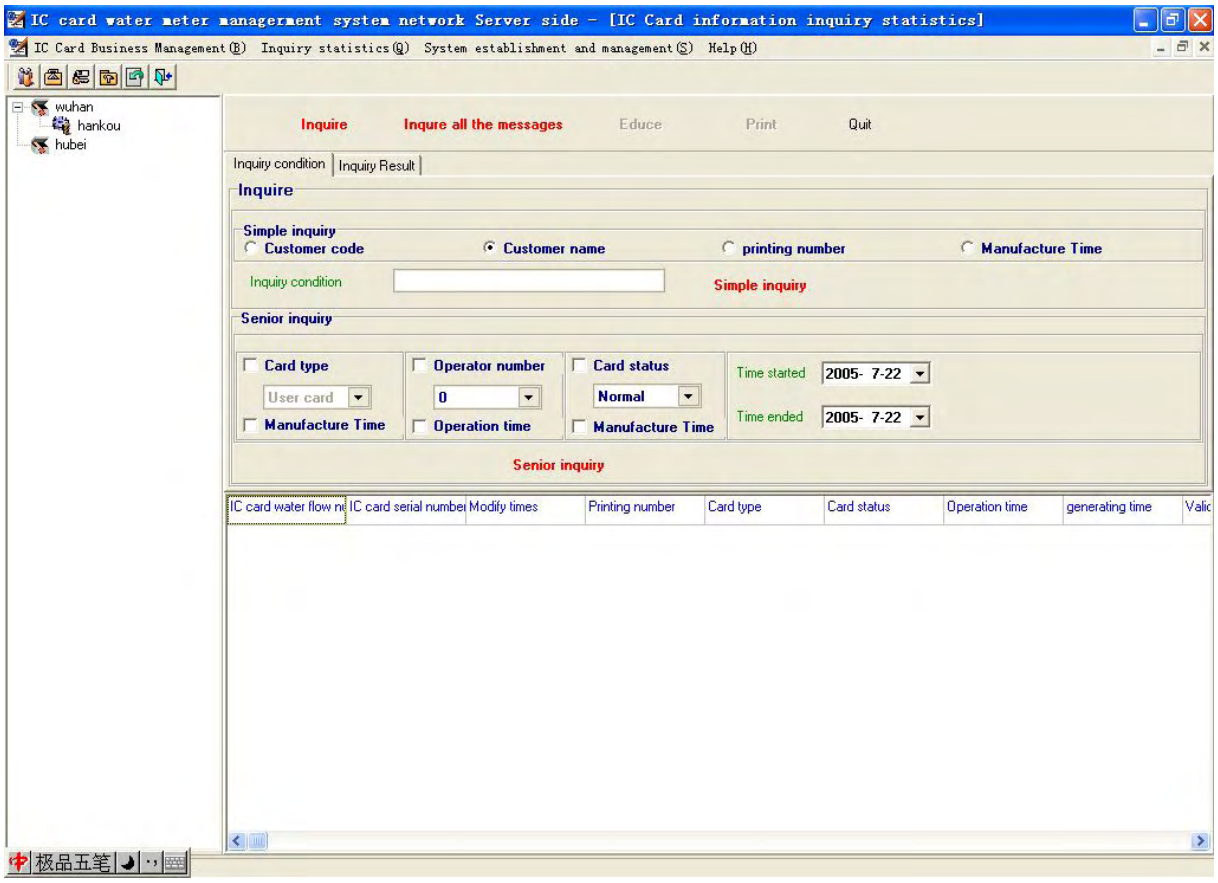
Printing: (may only be done when the data window at the bottom of the screen displays data)

(as pictured)



Select the data you want print on the left side of the screen. The “direction” function lets you select whether to print vertically or horizontally. After checking the content you want to print, click on the “OK” button to preview the information you will be printing.

IC Card information inquiry statistics



Search by Customer Code:

Click on “customer code”, enter the customer code, and then click on “simple inquiry” button.

Search by Customer name:

Click on “customer name”, enter the customer name, and then click on “simple inquiry” button.

Search by manufacture time:

Click on “manufacture time”, enter the manufacture time, then click on “simple inquiry” button.

Search by Card Type and Manufacture time:

Select “card type”, then in the next window select the card type you want to search by. Next select “Manufacture time”, and

select the beginning and endings times you want to search by, then click on “senior inquiry”.

Search by Operator Number and Operation Time:

Select “operator number”, and then in the next window select the operating personnel number you want to search by. Next select “operation time”, and select the beginning and endings times you want to search by, then click on “senior inquiry”.

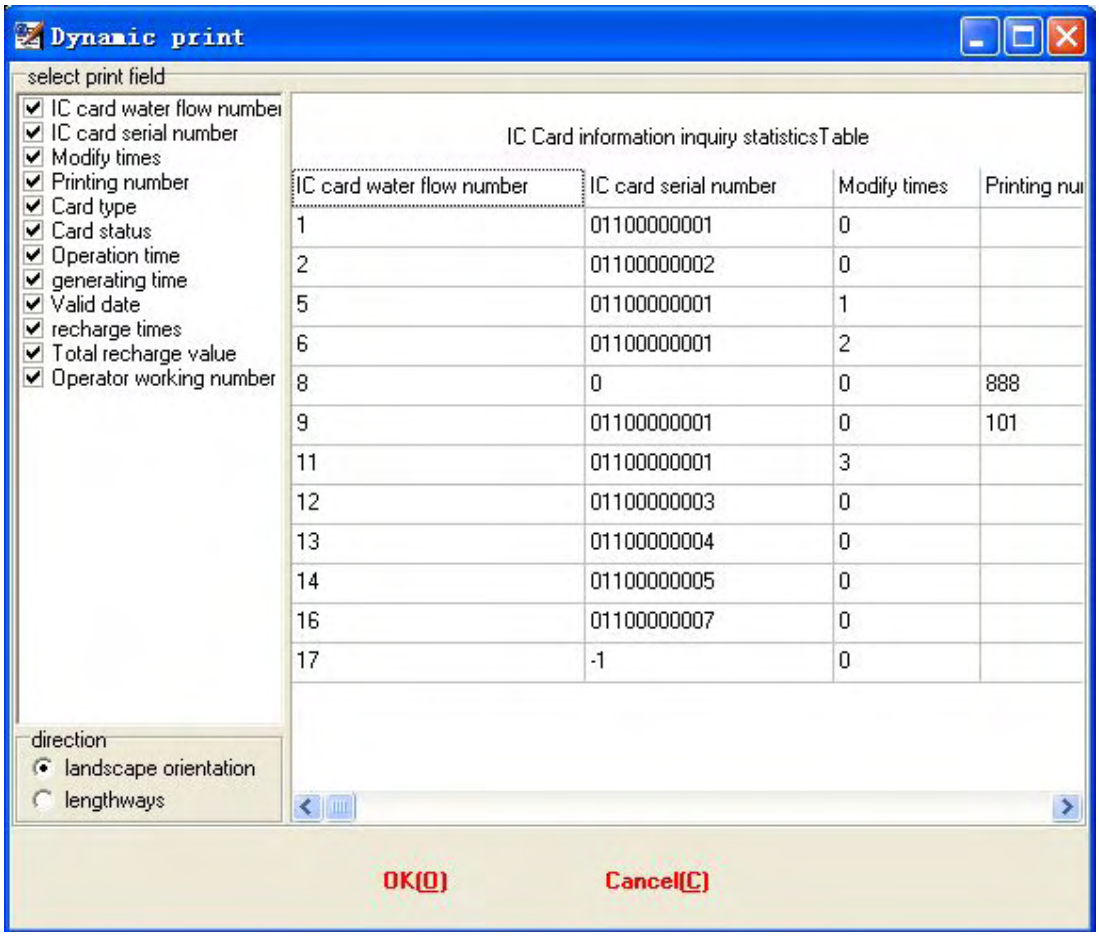
Search by Card Status and Manufacture time :

Select “card status”, then in the next window select the card status you want to search by. Next select “Manufacture time”, and select the beginning and endings times you want to search by, then click on “senior inquiry”.

Educe to Excel: (Note: may only be done when the data window at the bottom of the screen displays data)

Click on the “Educe” button, open the “save file” dialog box, select the location you want to save the file to, enter a name for the Excel file, click on “save” to complete the process.

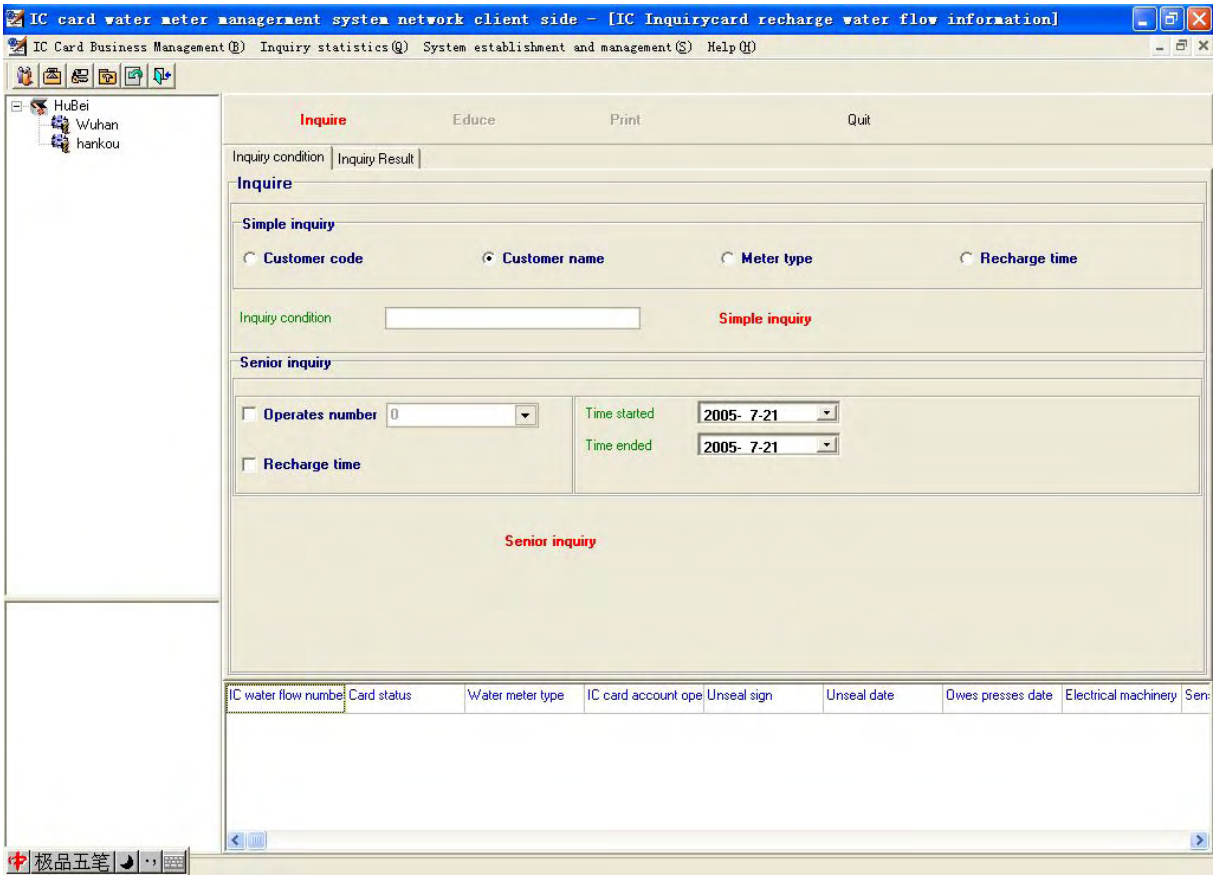
Printing: (may only be done when the data window at the bottom of the screen displays data) (as pictured)



Select the data you want print on the left side of the screen. The “direction” function lets you select whether to print vertically or horizontally. After checking the content you want to print, click on the “confirm” button to preview the information you will be printing.

IC Card recharge flow inquiry

In the main menu, click on the “IC Card recharge flow information inquiry” menu and enter the “IC Card recharge flow information inquiry” screen. (As picture)



Search by Customer Code:

Click on "customer code", enter the customer code, and then click on "simple inquiry" button.

Search by Customer Name:

Click on "customer name", enter the customer name, and then click on "simple inquiry" button.

Search by Water Meter Type:

Click on "water meter type", enter the water meter type, and then click on "simple inquiry" button.

Search by Recharge Time:

Click on "recharge time", enter the time of fund addition, then click on "simple inquiry" button.

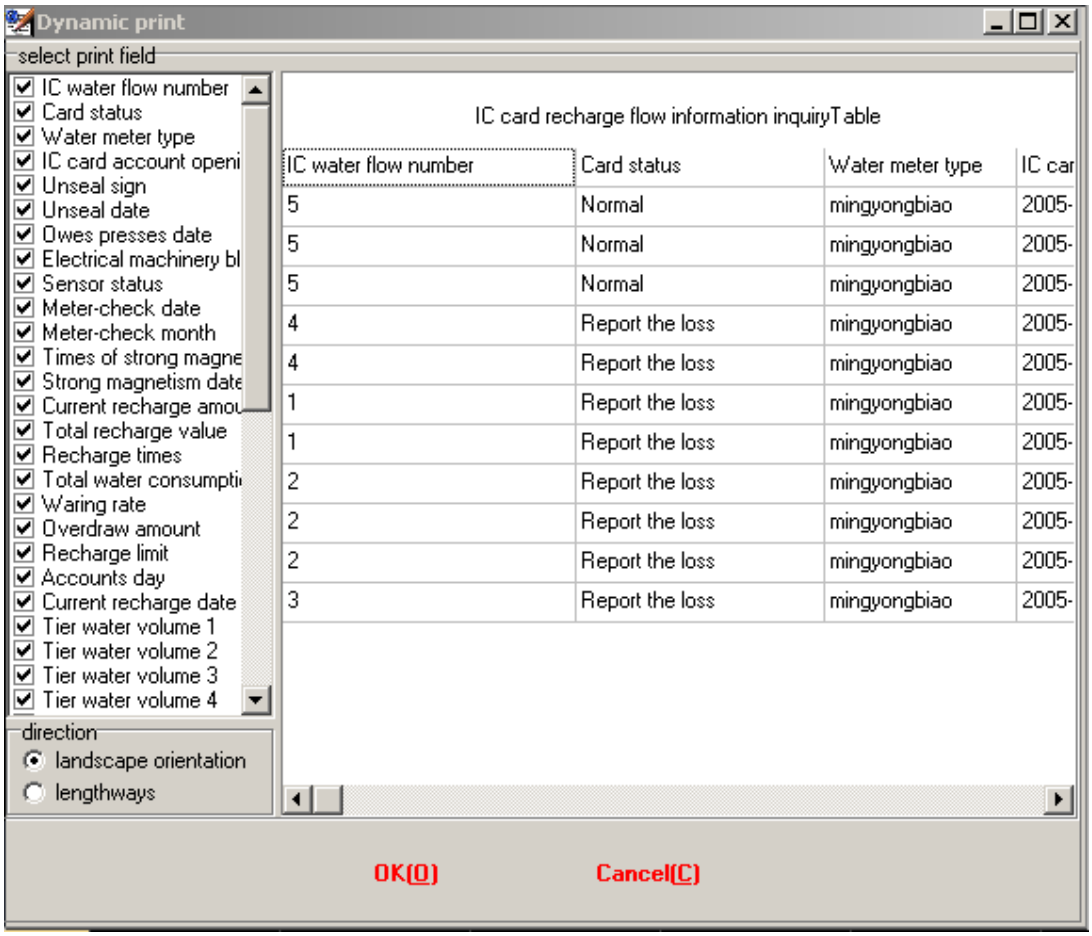
Search by Operator Number and Recharge Time:

Select “operator number”, and then in the next window select the operating personnel number you want to search by. Next select “recharge time”, and select the beginning and ending times you want to search by, then click on “senior inquiry”.

Educe to Excel (Note: This function may only be used when data are displayed in the data window at the bottom of the screen),

Click on the “Educe” button, open the “save file” dialog box, select the location you want to save the file to, enter a name for the Excel file, click on “save” to complete the process.

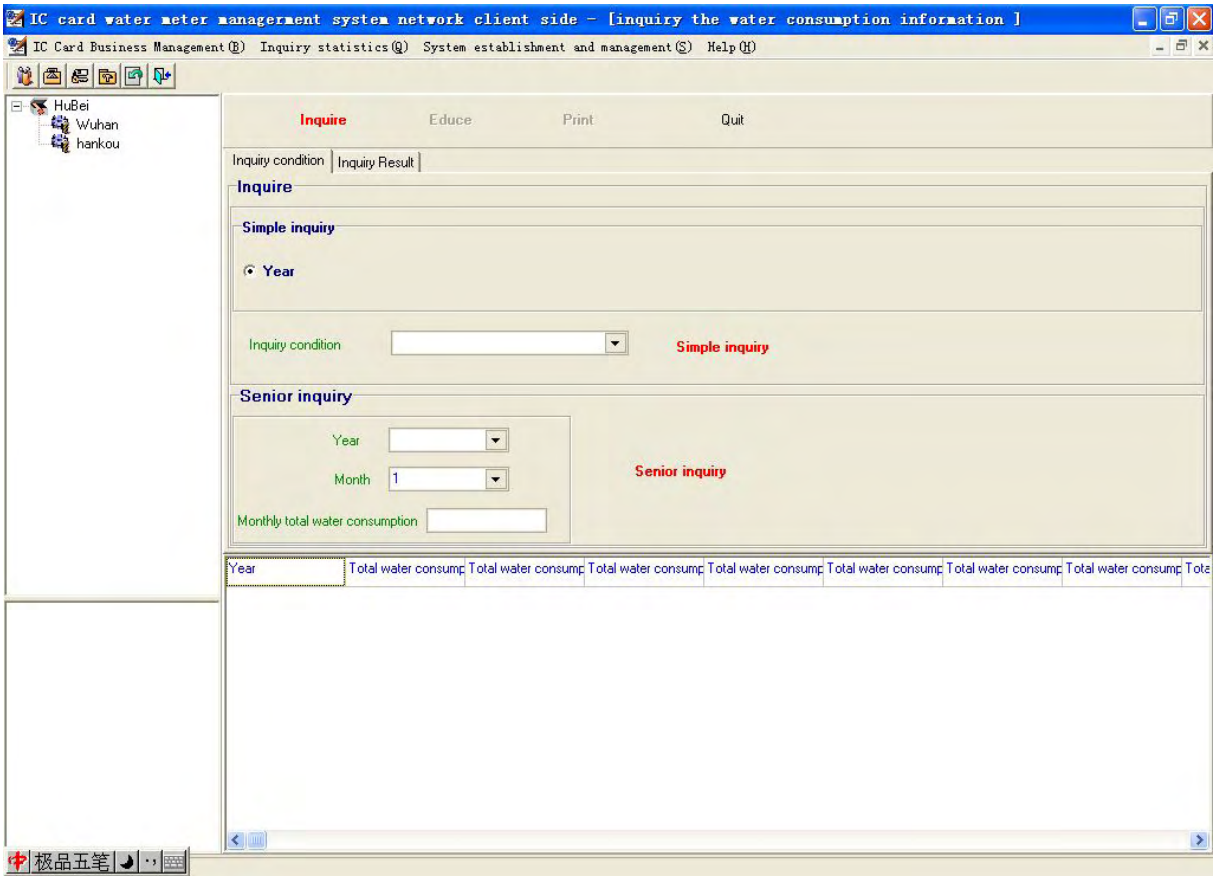
Print: (may only be done when the data window at the bottom of the screen displays data) (as pictured)



Select the data you want print on the left side of the screen. The “direction” function lets you select whether to print vertically or horizontally. After checking the content you want to print, click on the “OK” button to preview the information you will be printing.

Inquiry the water consumption information

In the main menu, click on the “Inquiry the water consumption information” menu and enter the “Inquiry the water consumption information” screen.



Search by Year:

Select the year you want to search by in the search criteria box, click on “simple search”.

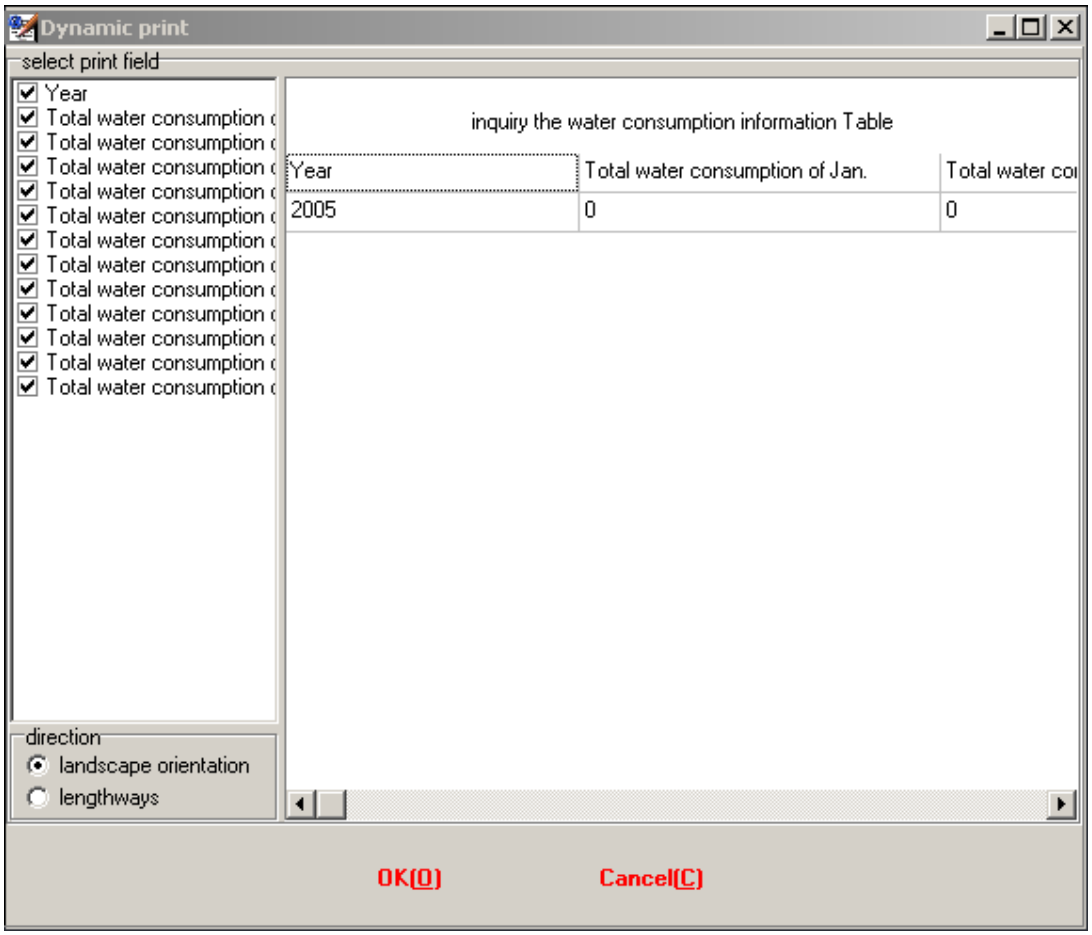
Search by Month and Year:

Select the year and month you want to search by and the screen will display detailed information concerning the selected timeframe.

Educe to Excel (Note: This function may only be used when data are displayed in the data window at the bottom of the screen),

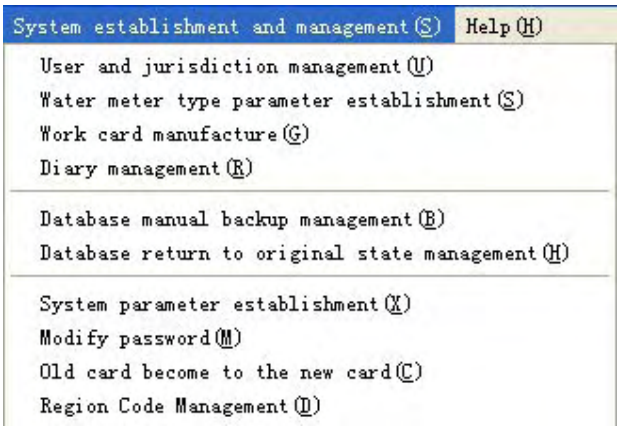
Click on the "Educe" button, open the "save file" dialog box, select the location you want to save the file to, enter a name for the Excel file, click on "save" to complete the process.

Printing: (may only be done when the data window at the bottom of the screen displays data) (as pictured)



Select the data you want print on the left side of the screen. The "direction" function lets you select whether to print vertically or horizontally. After checking the content you want to print, click on the "OK" button to preview the information you will be printing.

System management modular structure explanation

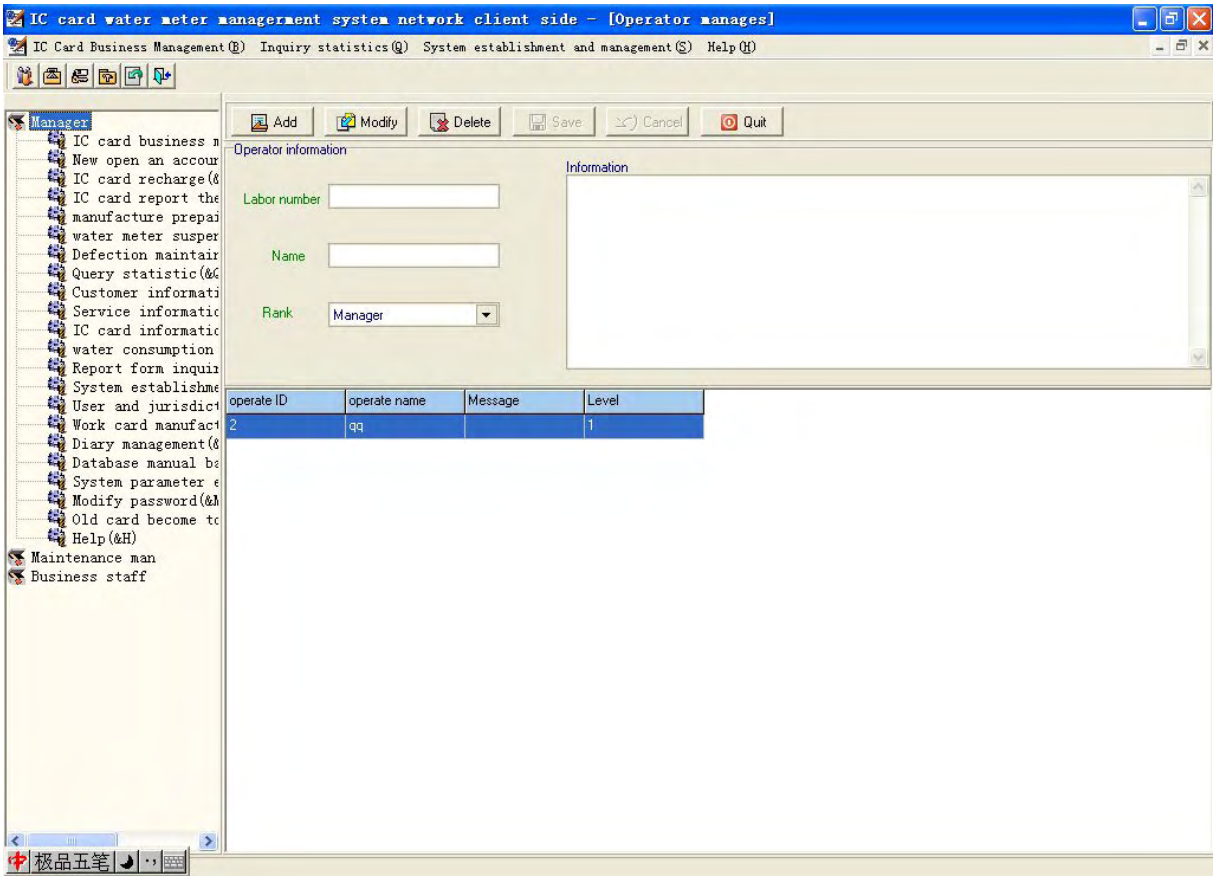

System establishment and management (S)
Help (H)
User and jurisdiction management (U)
Water meter type parameter establishment (S)
Work card manufacture (G)
Diary management (R)
Database manual backup management (B)
Database return to original state management (H)
System parameter establishment (X)
Modify password (M)
Old card become to the new card (C)
Region Code Management (D)

User and jurisdiction management	Administrator setting up system user and functions
Water meter type parameter establishment	Set up various kinds of water meter type parameter
Word card manufacture	Generating work cards
Diary management	Record system status
Database manual backup management	Copy of database information
Database reinstallation Management	Information reinstallation of database
System parameter establishment	Set up key parameters of the system (user interface, database connections)
Modify Passwords	Modifying customer passwords
Old card become to the new card	**Converting Used Cards to New Cards**

Region code management	Set up management of customer regions
Server disposition	In the network lands the server end establishment

User and jurisdiction management

In the main menu, click on the “Operator manages” menu and enter the “Operator manages” screen. (As pictured)



Add Operator:

1.Click on the “add” button;

2.Enter “Labor number” and “name”, select “rank” (cannot repeat employee number larger than 0);。

3.Click on the “save” button, and a new operator is added (password is “888888”).

Modify Operator:

1.Select a line in the operator menu on the bottom-right of the screen;

2.Click on the “modify” button;

3.Enter “name”, then select “rank” (cannot modify employee number);

4.Click on the “save” button and you are ready to modify the operator.

Delete Operator:

1.Select a line in the operator menu on the bottom-right of the screen;

2.Click on the “delete” button;

3.Click on the “save” button and you are ready to delete the operator

Attention: If you have yet to click on the “save” button, you can cancel the procedure by clicking on the “cancel” button.

Allocating Right Authorization:

1.Select a type name from the tree-shape image on the left side of the screen;

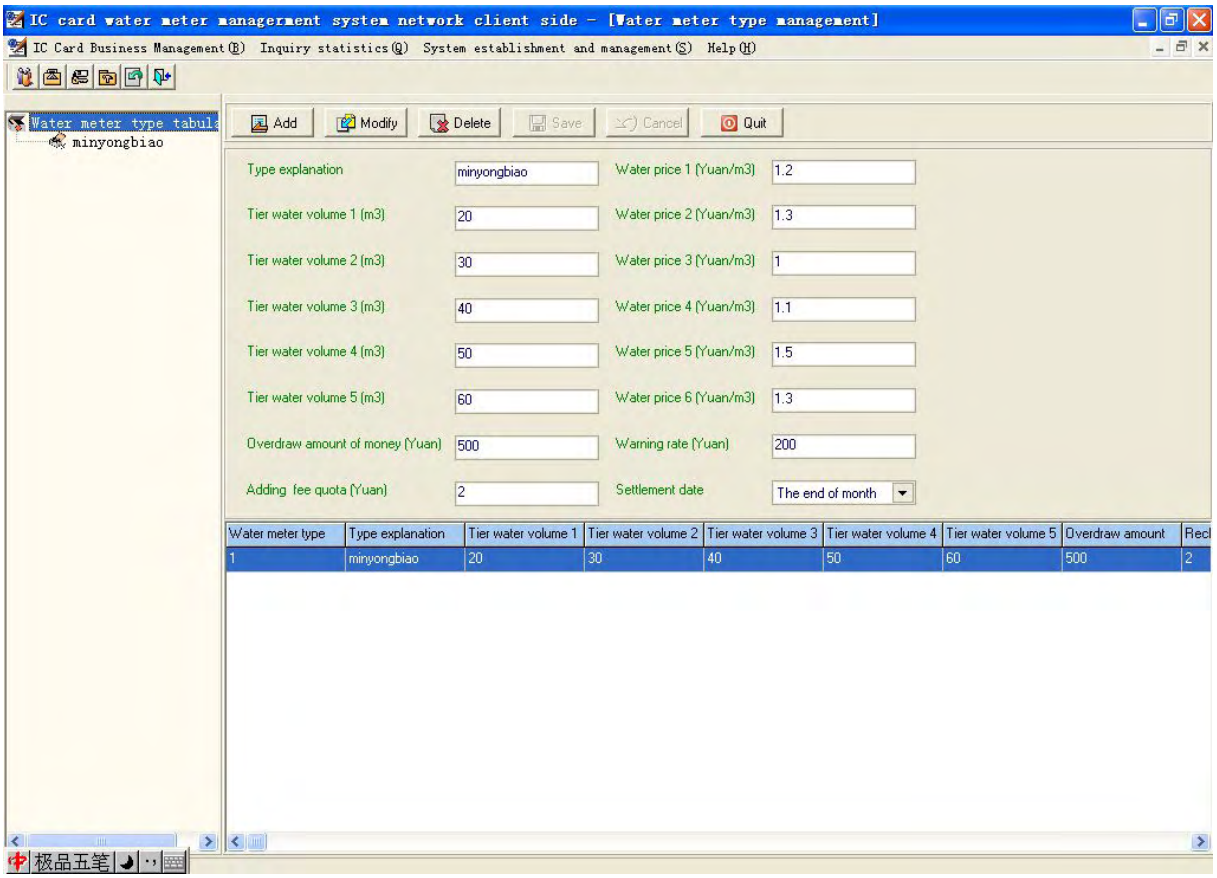
2.Click on the button on the right, and select “Manager jurisdiction definition”, then the following list appears

Select a type of right authorization from the list above.

3.Click on the “save” button and you are ready to modify right authorization.

Water meter type management

In the main menu, click on the “Water meter type management” menu and enter the “Water meter type management” screen. (As picture)



Add Water Meter Type:

1.Click on the “add” button;
2.Enter “Labor number” and “name”, select “rank” (cannot repeat employee number larger than 0);
3.Click on the “save” button, and a new water meter type is added.

Modify Water Meter Type:

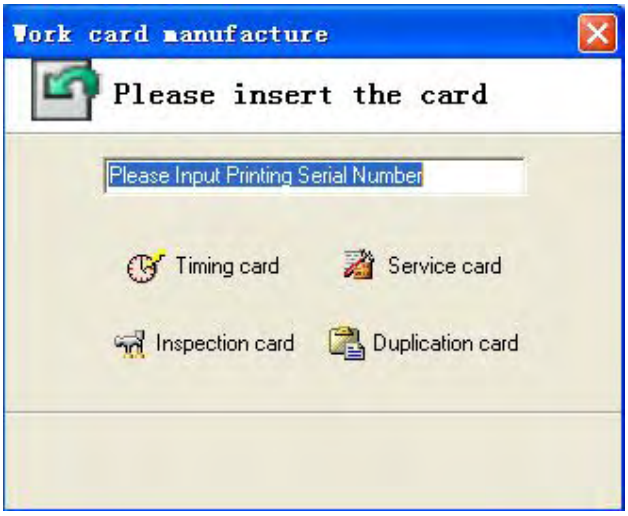
1.Select a line in the water meter type menu on the bottom-right of the screen;
2.Click on the “modify” button;
3.Enter “type explanation” and other related information, select “Settlement date”;
4.Click on the “save” button and you are ready to modify water meter type.

Delete Water Meter Type:

1.Click on the “delete” button;
2.Click on the “save” button and you are ready to delete the operating personnel.
Attention: If you have yet to click on the “save” button, you can cancel the procedure by clicking on the “cancel” button.

Work card manufacture

In the main menu, click on the “Work card manufacture” menu and enter the “Work card manufacture” screen. (As picture)



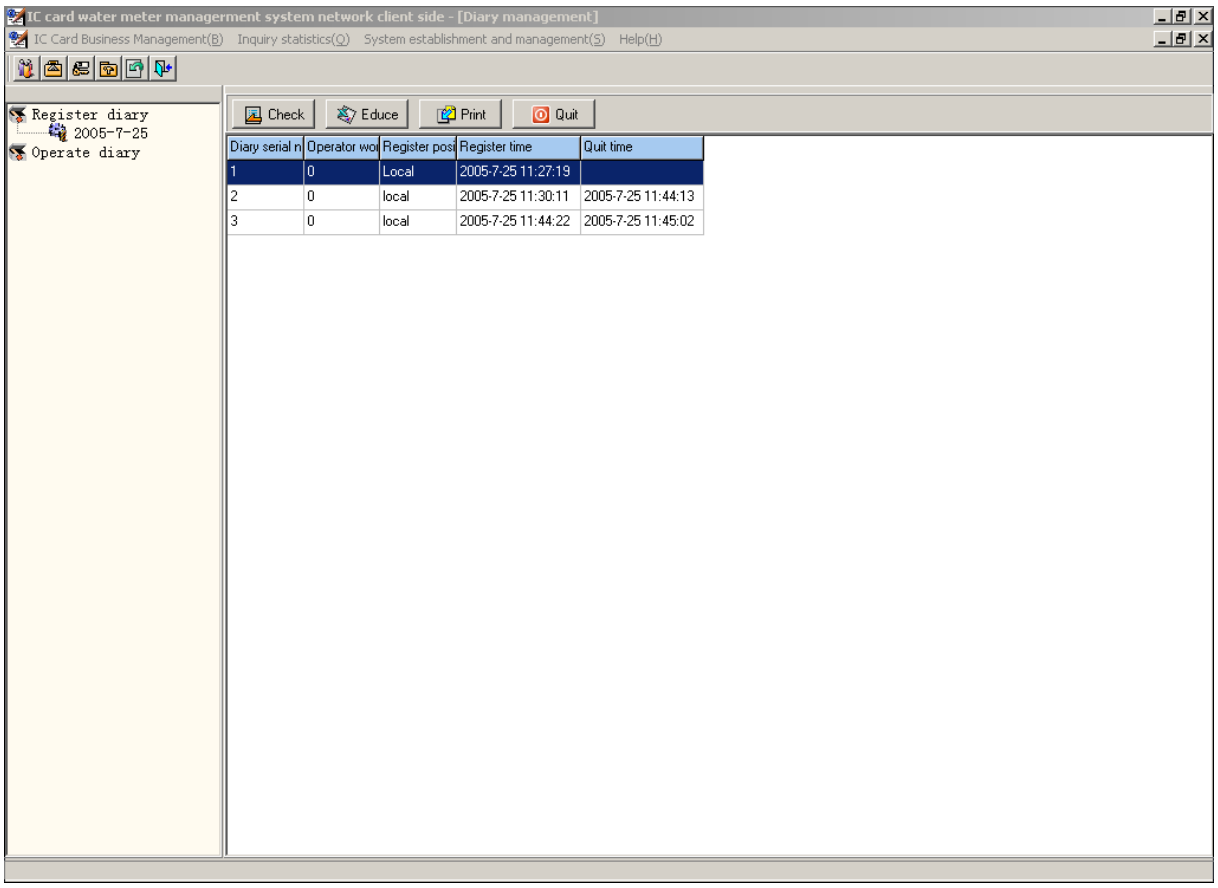
1. Insert blank IC card into card reader;

2. Please input printing serial number;。

3. Click on the “work card type” button and you are ready to generate a work card.

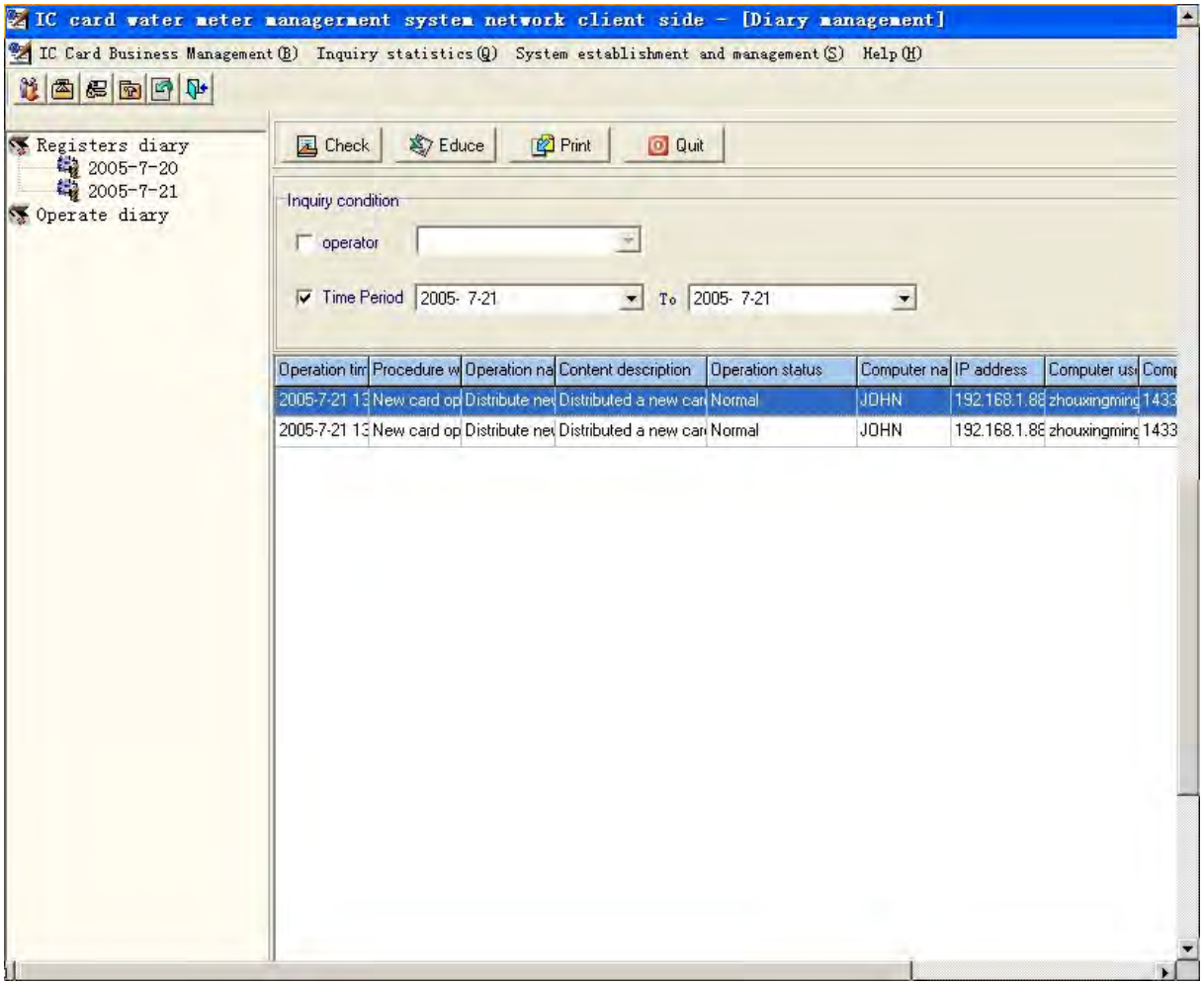
Diary management

In the main menu, click on the “Diary management” menu and enter the “diary management” screen. (As picture)



Click on the “Register Diary” tree image on the left side of the screen to search management information from a particular day;

Click on the “Operate Diary” tree image on the left side of the screen to search for the operating information for particular operating personnel on a particular day;



Delete Operator:

1.Select a line in the operating personnel menu on the bottom-right of the screen;
2.Click on the “delete” button;
3.Click on the “save” button and you are ready to delete a particular management diary.
Attention: If you have yet to click on the “save” button, you can cancel the procedure by clicking on the “cancel” button.

Database manual backup management

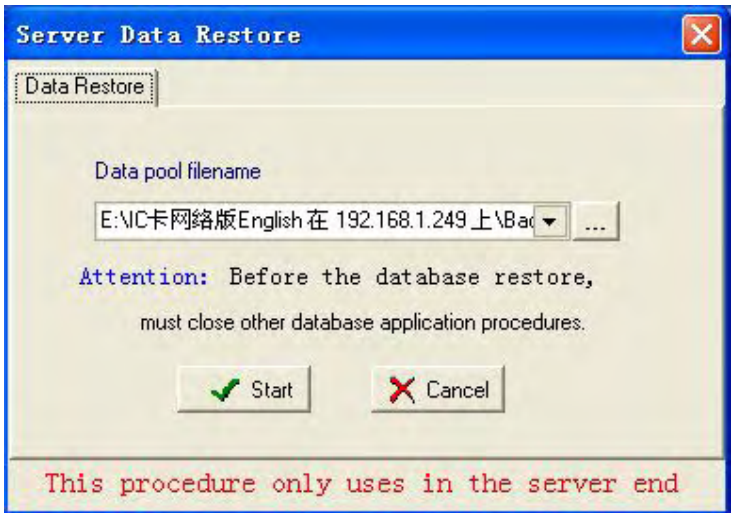
In the main menu, click on the “server data backup” menu and enter the “server data backup” screen. (As picture). Note: This function is only available on

1.Select “the copy of system database information file”, type in the file name” (include the location where the file is saved; or select a file name in the “. . . .” area on the right side.

2.Click on “ok” button to copy files

Dadabase reinstallation management

In the main menu, click on the “Server data restore" menu and enter the “Server data restore” screen. (As picture). Note: This function is only available on?



1. In the drop down box, select the list of database copy and location in the “Management of Database reinstallation” (or select a file name in the “. . . .” area on the right side).

2.Click on “start” button to reinstall the database.

Attention: Rebooting the database could take a substantial period of time, please wait patiently. (It is advised to make a copy of database before you do database rebooting)

System parameter establishment

In the main menu, click on the “System parameter establishment” menu and enter the “System parameter establishment” screen. (As picture).

1. in the text area, type in the file name and location in the “database backup list” (or select a file name in the “ . . ..” area on the right side).

2. Select the week for automatic save (or enter a number using the date as the unit; enter 1 for daily save);

3. Click on “OK” button to save parameter information.

Modify password

1. Enter your current password in the “old password” box;

2. Enter your new password in the “new password” and “confirm new password” boxes;

3.Click on “confirm” button to finish modifying password.

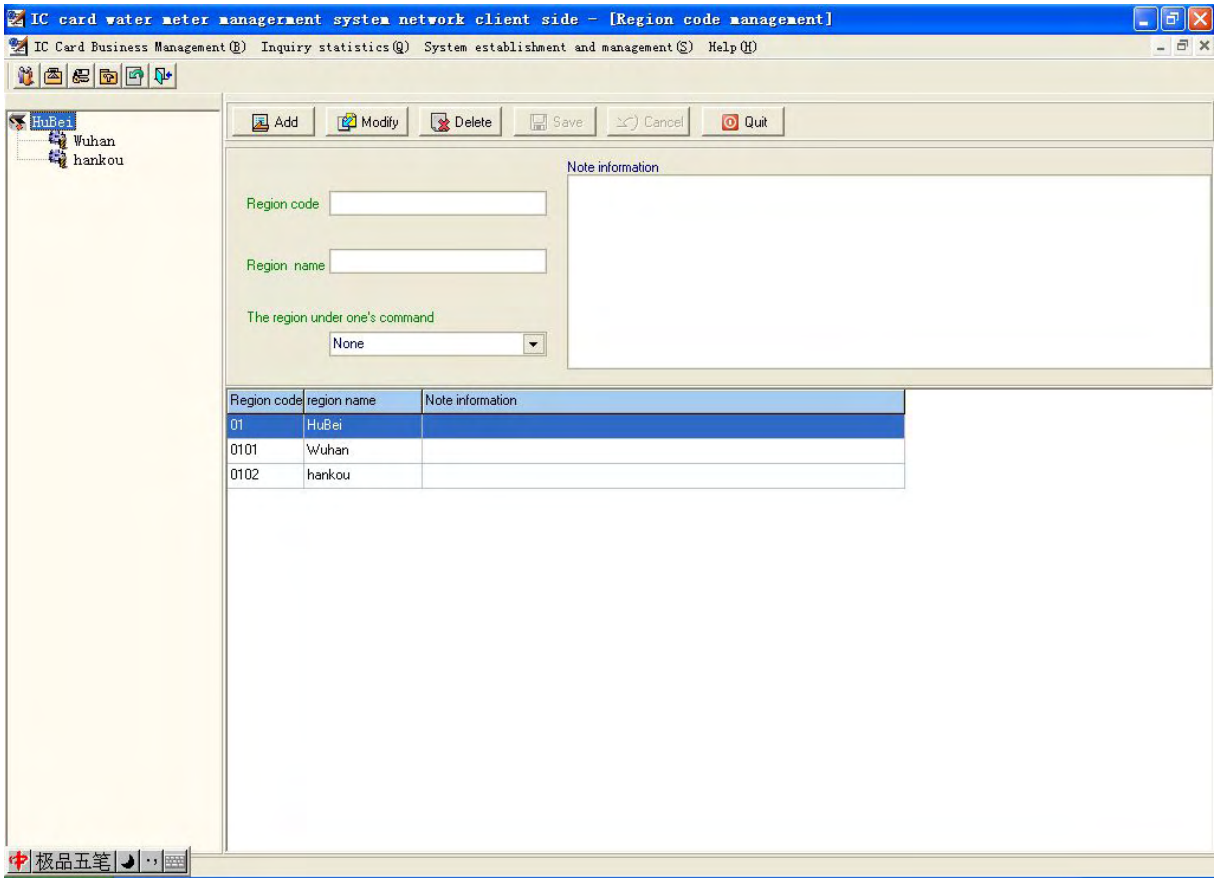
Attention: Operator can only modify their OWN passwords

Old card become to the new card

1.Insert work card or customer card into the card reader;
2.Click on the opposite button to retrieve card.

Region code management

In the main menu, click on the “region code management” menu and enter the “region code management” screen. (As picture).



Add region code:

1.Click on the “add” button;
2.Enter “region name”, then select “The region under one’s command” (region code will automatically be generated);
3.Click on “save” button, and you are ready to add a region code.

Modify Operator:

1.Make a selection from the region code list at the bottom-right corner of the screen;
2.Click on the “modify” button;
3.Enter “region name” (region code cannot be modified);
4.Click on the “save” button and you will be ready to modify the region code.

Delete Operator:

1.Make a selection from the operating personnel list at the bottom-right corner of the screen;
2.Click on the “delete” button;
3.Click on the “save” button and you will be ready to delete the region code.
Attention: If you have yet to click on the “save” button, you can cancel the procedure by clicking on the “cancel” button.

Server information dispose

In the main menu, click on the “server information dispose” menu and enter the “server information dispose” screen. (As picture). Note: This function is only available on

Checking Identity: (Tacitly approves use SQL Server identity checker)

Serve name：

Computer name about the sever port what you will connect

Troubleshooting

Operation failure

When operator sees the following message upon performing IC Card management tasks:：

Please check the following:

1.Whether the card reader is properly connected to the computer (check power light);

2.Whether the card reader? Is properly installed (please check the parameter set up menu for installation information);

3.Whether the card has been properly inserted into the card reader;

4.Whether the card has been damaged (may want to use another card).

Database connection failure

When operator sees the following message upon performing IC Card management tasks:

Please check the following:

1.Whether the SqlServer2000 on this machine has been properly installed;

2.Whether the SqlServer2000 on this machine has been properly initiated;